

Cooperative Extension Service University of Illinois at Urbana-Champaign





Department of Agricultural Economics
College of Agriculture
University of Illinois at Urbana-Champaign

August 6, 1986

CORN STORAGE CONSIDERATIONS

USDA WILL RELEASE ITS FIRST ESTIMATE of the size of the 1986 corn crop on August 12. A large crop and a record carryover will test the industry's ability to meet storage demands. Producers need to evaluate alternatives to storage, as well as the economics of using available storage.

Should available space be used? Let us look at the easiest situation, that of a producer who is eligible for the Commodity Credit Corporation (CCC) loan program. The national loan rate is \$1.92, but is expected to be lowered to \$1.84 by the spending reduction legislation. If the cash price at harvest is below the loan rate by more than the cost of storing corn, the producer's best alternative is to take the loan (or enter into a purchase agreement) and store the corn. If a loan is taken, the interest need not be counted as a storage cost, because forfeiture of the loan will eliminate interest payments. Include in the calculation only warehouse costs and the cost of drying and shrinkage below 15 percent moisture.

Now let us look at the producer who is not eligible for the CCC loan. The total cost of storage, including interest on the value of the stored corn, must be evaluated in terms of forward pricing opportunities or of potential increases in cash prices. Forward pricing stored grain might be considered if the contract price exceeds the harvest price by more than the total cost of storage. If corn is stored unpriced, the cash price during storage must increase by more than the storage cost.

Producers who expect higher prices following harvest have two alternatives to storage. Each should be evaluated even by those producers who are eligible for the CCC loan but who can receive a harvest price above the net loan value (loan rate minus the cost of storage). For those who are eligible for the loan but are forced or choose to sell corn at harvest, these alternatives will provide some protection for the deficiency payment.

The most obvious alternative for corn storage is to replace the cash sale of corn with the purchase of futures contracts. Basis contracts and delayed pricing

contracts are indirect methods of owning futures. Selling cash corn and purchasing futures fixes the basis and allows the producer to speculate on futures prices. Any future improvement in the basis is an indirect cost. Potential improvement in the basis should be compared to the cost of storage to determine the least cost method of ownership where both alternatives are available.

An alternative to buying futures when corn is sold is the purchase of call options. (Minimum price contracts are an indirect method of owning call options.) For a premium, the producer purchasing the call option buys the right to buy futures at a later date at a specified strike price. If futures prices increase, the option can be sold for a profit. If they decline, the option will be sold at a loss, but the loss is limited to the magnitude of the original premium. The advantage of the call option over buying futures is that losses are limited to the value of the original premium. The disadvantage is that the premium paid for the option is a sunk cost that cannot be recovered.

Producers should compare the magnitude of the premium for the option to the potential decline in futures price to choose the better alternative. That is, if an at-the-money call option has a premium of 15 cents, the producer can afford to buy futures and take a 15-cent loss and be no worse off than buying the call option.

The major reason for owning corn this year is to protect the deficiency payment in case prices increase significantly later in the year. Because of the way that payment is determined, protection will be required for most of the marketing year, not just for the first five months.

D. J. Hood

Issued by Darrel L. Good, Extension Specialist, Prices and Outlook

Cooperative Extension Service
United States Department of Agriculture
University of Illinois
At Urbana-Champaign
Urbana, Illinois 61801

Official Business Penalty for private use, \$300 POSTAGE AND FEES PAID U.S. DEPARTMENT OF AGRICULTURE AGR 105

